

***Illinois Post-2006  
PROCUREMENT PROCESS***

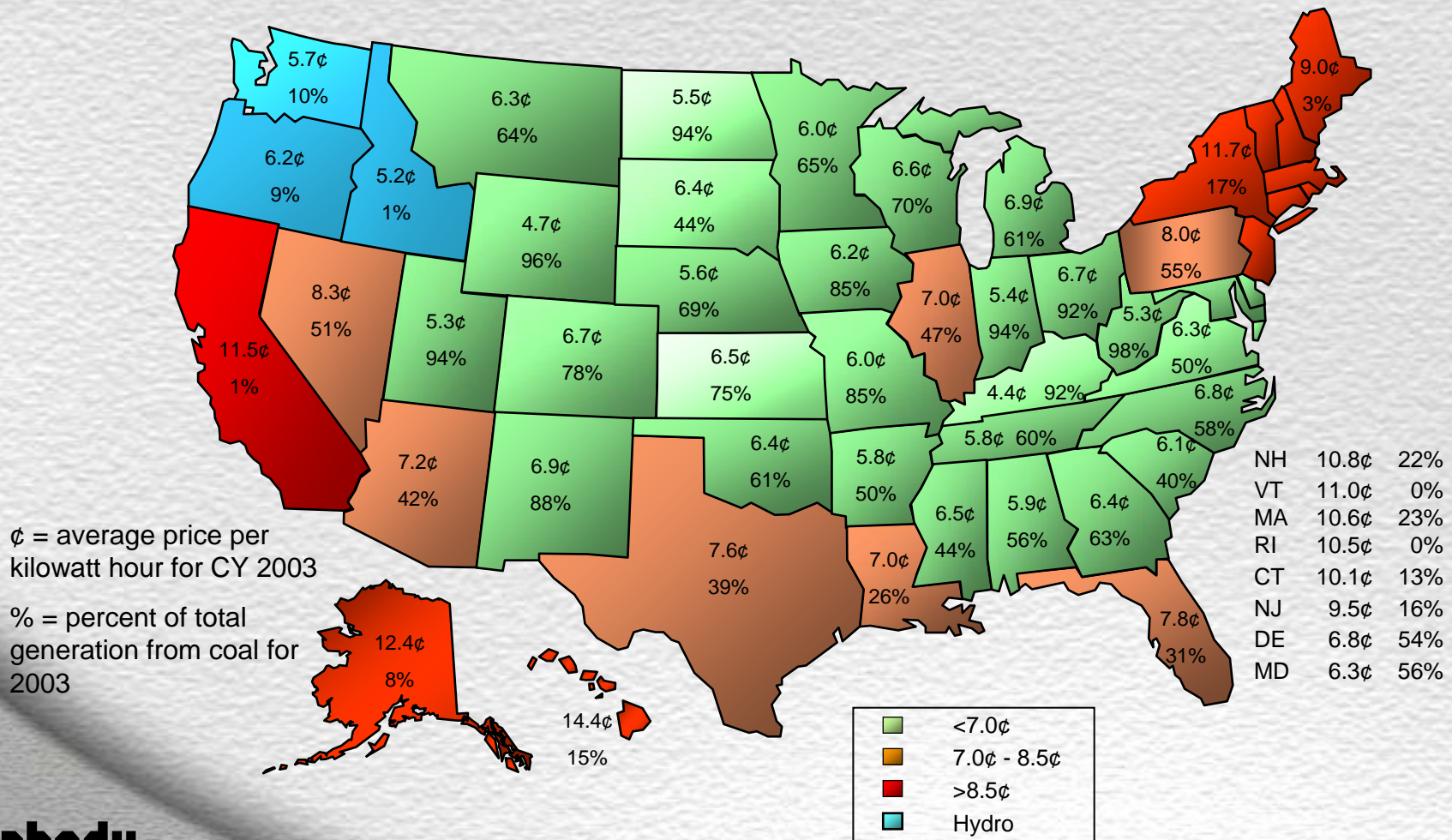
***OPTION 3:  
HORIZONTAL PRODUCTS***

**July 26, 2004**

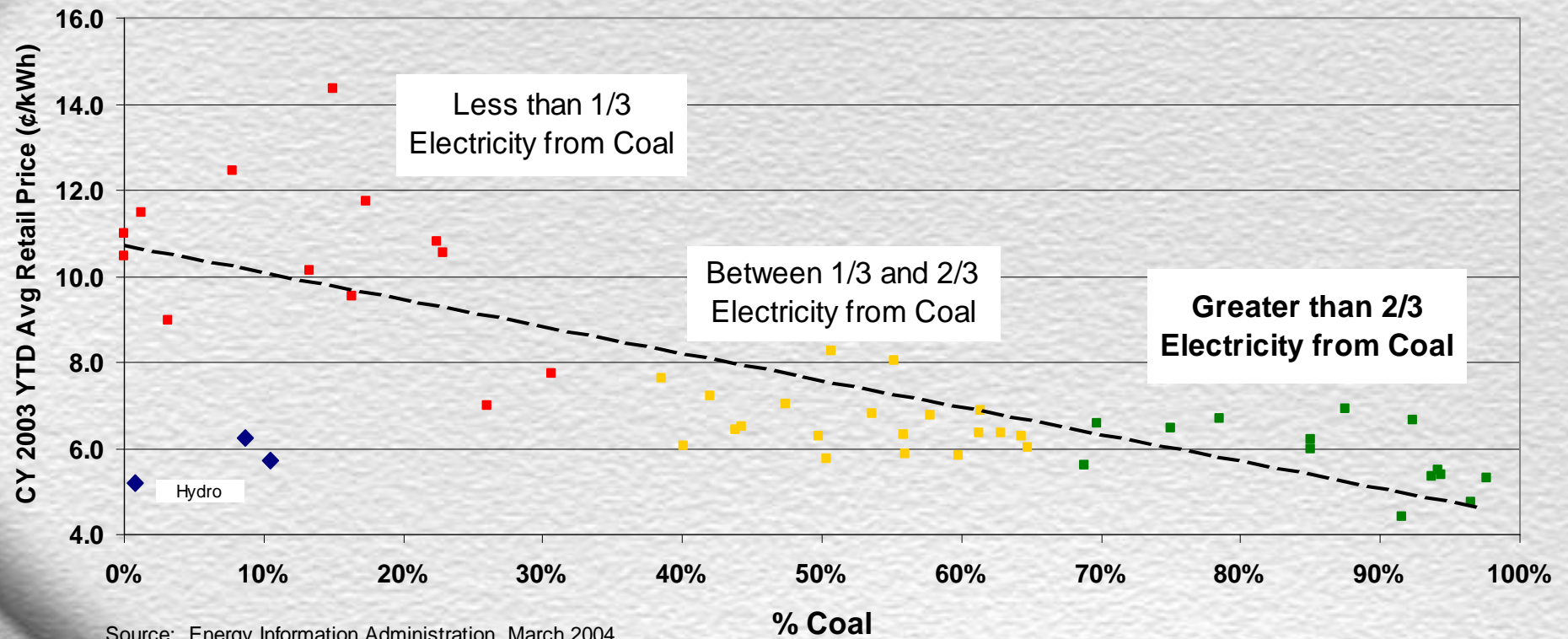
# Industry Overview

## *U.S. Low-Cost Electricity Comes from Coal*

Over 50% of the Electricity in the U.S. Comes from Coal



## USE OF COAL CRITICAL TO SUSTAIN LOW COST Cost per kWh vs. % of Electricity from Coal



# Basic Electricity and Energy Infrastructure Needed

- **Load growth of more than 60% in last 20 years**
  - Little new baseload resources added
  - Little new transmission added
  - Real electricity prices starting to rise
- **Nuclear generation capacity reaching output limit**
  - 1990, 66% capacity factor                      - 2003, 90% capacity factor
- **Coal generation capacity becoming fully utilized**
  - 1990, 59% capacity factor                      - 2003, 73% capacity factor
- **Load expected to grow another 20% over next 10 years**
- **Clear Skies-like rules proposed by the EPA in December likely to close 5 - 10% of existing coal capacity – small, older, higher cost plants by 2010**
- **Existing coal fleet has an average age of 35 years**
- **7 – 8 year lead time for new coal generation**

# Current Generation Profile in the State of Illinois

<u>Plant Operator</u>	<u>Generation (MWh)</u>	<u>% of IL Total MWh</u>	<u>Capacity (MW demo'd)</u>	<u>% of IL Total MW</u>
Exelon Corp.	94,733,036	51.52%	11,462	26.80%
Edison International	28,590,396	15.55%	9,115	21.31%
Ameren Corp.	27,618,367	15.02%	6,996	16.36%
Dynegy, Inc.	21,090,256	11.47%	4,140	9.68%
Dominion Resources, Inc.	6,678,077	3.63%	1,108	2.59%
Springfield Water, Light & Power	1,979,807	1.08%	566	1.32%
Southern Illinois Power Coop	1,429,045	0.78%	280	0.65%
Calpine Corp.	521,966	0.28%	626	1.46%
MidAmerican Energy Holdings Co.	395,094	0.21%	619	1.45%
NRG Energy, Inc.	236,012	0.13%	592	1.38%
Elwood Energy, LLC	213,064	0.12%	1,430	3.34%
Constellation Energy Group, Inc.	117,620	0.06%	841	1.97%
Reliant Energy, Inc.	87,406	0.05%	1,314	3.07%
Archer Daniels Midland Co.	85,040	0.05%	30	0.07%
PPL Corp.	59,448	0.03%	528	1.23%
Allegheny Energy, Inc.	18,516	0.01%	669	1.57%
Wisconsin Energy Corp.	11,901	0.01%	304	0.71%
Peoples Energy Corp.	6,254	0.00%	337	0.79%
DTE Energy Co.	5,707	0.00%	340	0.79%
Duke Energy Corp.	4,685	0.00%	640	1.50%
Aquila, Inc	1,431	0.00%	830	1.94%
<b>Total</b>	<b>183,883,128</b>		<b>42,768</b>	

# ***How Were Existing IOU Portfolios Built?***

- Rate base process with implicit long-term contracts
  - Once asset approved in rate-base, long term recovery of capital cost allowed 30 – 40 year recovery period
- Utilities justified and added resources as dictated by obligation to serve load growth
- Traditional regulatory oversight:
  - Resource plan was low cost
  - Prudence in forecasting, timing and management of spending
- Assets were approved unit by unit, not in full requirements increments.
- Without this implicit term contract, no high capital low operating cost plants, coal and nuclear (and bulk transmission) would have been built
  - Coal assets are the reason the US has affordable electricity prices today

# ***Basic Principles of Option 3: Horizontal Products***

- Market-based acquisition by “horizontal” tranche or wholesale market segments
- Utility divides load or classes of load into horizontal blocks
  - Baseload, intermediate, peaking
  - 7 x 24, 5 x 16, 7 x 8
- Utility procurement should approximate horizontal blocks
- Baseload component should include a meaningful tranche of term procurement
  - Provides price stability to consumers
  - Provides opportunity for new low cost resources to compete
- Regulatory approval of product type, term and quantity
- Seeks wholesale competition (auction or RFP) to supply each segment

## ***Extended Principles of Option 3: Horizontal Products***

- ICC sets broad guidelines for portfolio management giving utilities the latitude to manage on their own portfolio
- Transparency in procurement process of the utmost importance, especially if utilities buy from unregulated affiliates
  - May require third party to conduct bid process
  - Assumes utilities are price takers with full recovery of costs
- Procurement within each horizontal tranche or segment would have its own set of terms and conditions that take into consideration industry practice, physical limitations and other factors with that segment
  - Level of capital intensity would influence term (base-load needs longer terms)
  - Underlying fuel volatility would influence pricing terms (gas peaking may require an indexed price)

## ***Option 3: Horizontal Products Pros***

- Horizontal Products best matches the way generation assets have been added over the last 40 years which will encourage development.
- Individual generators or new entrants can compete within their horizontal segment.
- Generators & power marketers are not required to have a full requirements portfolio upfront to be able to compete.
  - Reduces barriers to entry for lowest cost resources
  - Allows newer, cleaner more efficient plants to come to market
- Horizontal products and the associated blending of terms, especially long-term procurement, provides numerous benefits leading to price stability
  - Removes price volatility for large percentage of MWh
  - Removes price volatility from contracting year to year
  - Insulates customer from tremendous gas price volatility
    - Electricity customers are not a custom to price swings of 20 – 40% in a year, like the gas customers are today.

## ***Option 3: Horizontal Products Pros Continued***

- Horizontal Products with term procurement is consistent with State of Illinois policy of promoting new mine-mouth coal generation to revive Southern Illinois economy.
  - Ability to finance without term contracts is difficult
  - Without term market, very few coal projects are feasible
  - Loads with term contracts severely limited if Illinois retail precluded (municipals & cooperatives in state and loads external to Illinois)
- Horizontal Products with term procurement needed to develop most renewable generation markets
- Allows for consistent apportionment of risks
  - Suppliers manage risks associated with supply such as development risk, environmental regulation risk, construction risk, generation operational risk, etc.
  - Utilities manage system risks such as load growth, weather, diversity of supply, etc.

## ***Option 3: Horizontal Products Cons from July 19***

- Excludes pre-packaged offers that fit load shape and other obligations (Opt. 3A would incorporate additional flexibility)
- LSE must manage load function? (as they do today)
- Possible added transaction costs? (unclear what that means)
- Substantial portfolio risk is retained by LSE? (all depends on cost recovery mechanism and how long customers commit)
- Lack of long-term component will favor established generators (Opt. 3 should have a long-term dimension)
- Regulatory complexity and need for new staff skills? (base-load, intermediate, peaking and block energy are not be new concepts. That is how the system was planned over the last 40 years)
- Potential for stranded costs? (depends on cost recovery)
- Lacks benefits of competitive risk management other than supply
- Short-term nature does not promote base-load and intermediate generation (Opt. 3 should have a long-term dimension)
- Does not promote utilities to purchase base-load (Opt. 3 should have a long-term dimension)

## ***Option 3: Horizontal Products Cons from July 19 Continued***

- Does not promote transmission system improvement (Opt. 3 should have a long-term dimension)
- Supply diversity is only present when the term is long enough (Opt. 3 should have a long-term dimension)
- Deals are subject to the competitiveness of the wholesale supply market
- Short-term contracts pass energy market risk to end-users (Opt. 3 should have a long-term dimension)
- Little or no consumer review or input (Relies on regulatory body and points to the need for transparency)
- LSEs resultant composite purchase price reflects blended/staggered moving average (Customers don't get the lowest and don't pay the highest)
- Does not address procurement of hedges (Opt. 3A would incorporate additional flexibility)